09/762,304

PALM INTRANET

Day : Monday
Date: 9/30/2002

Time: 08:52:51

Inventor Name Search Result

Your Search was:

Last Name = MEYER-ALMES
First Name = FRANZ

Application#	Patent#	Status	Date Filed	Title	Inventor Name
09155571	6140090	150	10/01/1998	A METHOD FOR THE LABELING OF MOLECULES	MEYER-ALMES , FRANZ-JOSEF
09762304	Not Issued	071	04/16/2001	CHEMOSENSITIVITY MEASUREMENT USING CASPASE ACTIVITY	MEYER-ALMES, FRANZ JOSEF
09856185	Not Issued	019	09/07/2001	CHEMOSENSITIVITY DETERMINATION USING PHOSPHATIDYLSERINE	MEYER-ALMES, FRANZ-JOSEF
09678234	Not Issued	161	10/04/2000	METHOD FOR THE LABELING OF MOLECULES	MEYER-ALMES, FRANZ-JOSEF
10200583	Not Issued	019	07/23/2002	HOMOGENEOUS FLUORESCENCE ASSAY	MEYER-ALMES, FRANZ-JOSEF
09914869	Not Issued	161	09/04/2001	HOMOGENEOUS FLUORESCENCE ASSAY	MEYER-ALMES, FRANZ-JOSEF

Inventor Search Completed: No Records to Display.

Search Another: Inventor

Last Name MEYER-ALMES

First Name FRANZ

Search

To go back use Back button on your browser toolbar.

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09/762,304

WEST Search History

DATE: Monday, September 30, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ			
L3	L2 and caspase$1	1	L3
L2	aminocoumarin	366	L2
L1	aminocoumarin-devd	0	L1

END OF SEARCH HISTORY

WEST

End of Result Set

☐ Generate Collection Print

L3: Entry 1 of 1 File: USPT Jul 9, 2002

DOCUMENT-IDENTIFIER: US 6416959 B1
TITLE: System for cell-based screening

Drawing Description Text (33):
FIG. 32 is a photograph showing the effect of stimulation of apoptosis by cis-platin on BHK cells transfected with an expression vector that expresses the caspase biosensor shown in FIG. 32.

Detailed Description Text (173):
Apoptosis is commonly accompanied by a characteristic change in nuclear morphology (chromatin condensation or fragmentation) and a step-wise fragmentation of DNA culminating in the formation of mono- and/or oligomeric fragments of 200 base pairs. Specific changes in organellar function, such as mitochondrial membrane potential, occur. In addition, specific cysteine proteases (caspases) are activated, which catalyzes a highly selective pattern of protein degradation by proteolytic cleavage after specific aspartic acid residues. In addition, the external surface exposure of phosphatidylserine residues (normally on the inner membrane leaflet) allows for the recognition and elimination of apoptotic cells, before the membrane breaks up and cytosol or organelles spill into the intercellular space and elicit inflammatory reactions. Moreover, cells undergoing apoptosis tend to shrink, while also having a reduced intracellular potassium level.

Detailed Description Text (212):
A eukaryotic expression plasmid containing a coding sequence for a green fluorescent protein--caspase (Cohen (1997), Biochemical J. 326:1-16; Liang et al. (1997), J. of Molec. Biol. 274:291-302) chimera is prepared using GFP mutants. The construct is used to transfect eukaryotic cells.

Detailed Description Text (215):
Apopototic Induction of Caspase-GFP Translocation

Detailed Description Text (216):
To obtain Caspase-GFP translocation kinetic data, nuclei of transfected cells are first labeled with 5 .mu.g/ml Hoechst 33342 (Molecular Probes) in C-DMEM for 20 minutes at 37.degree. C. and 5% CO.sub.2. Cells are washed once in Hank's Balanced Salt Solution (HBSS) followed by the addition of compounds that induce apoptosis. These compounds include, but are not limited to paclitaxel, staurosporine, ceramide, and tumor necrosis factor. To obtain fixed time point titration data, transfected cells are first washed with DMEM and then incubated at 37.degree. C. and 5% CO.sub.2 for 1 h in the presence of 0-1000 nM compound in DMEM. Cells are analyzed live or they are rinsed with HBSS, fixed for 15 min with 3.7% formaldehyde in HBSS, stained with Hoechst 33342, and washed before analysis.

Detailed Description Text (218):
Kinetic data are collected by acquiring fluorescence image pairs (Caspase-GFP and Hoechst 33342-labeled nuclei) from fields of living cells at 1 min intervals for 30 min after the addition of compound. Likewise, image pairs are obtained from each well of the fixed time point screening plates 1 h after the addition of compound. In both cases, the image pairs obtained at each time point, are used to define nuclear and cytoplasmic regions in each cell. Translocation of Caspase-GFP is calculated by dividing the integrated fluorescence intensity of Caspase-GFP in the nucleus by the integrated fluorescence intensity of the chimera in the cytoplasm or as a nuclear-cytoplasmic difference of GFP fluorescence. In the fixed time point screen this translocation ratio is calculated from data obtained from at least 200 cells at each concentration of compound tested. Drug-induced translocation of Caspase-GFP from the cytoplasm to the nucleus is therefore correlated with an increase in the translocation ratio. Molecular interaction libraries including, but not limited to those comprising putative activators or inhibitors of apoptosis-activated enzymes are use to screen the indicator cell lines and identify a specific ligand for the DAS, and a pathway activated by compound activity.

Detailed Description Text (298):

In one embodiment, small reactive fluorescent molecules are introduced into living cells. These membrane-permeant molecules both diffuse through and react with protein components in the plasma membrane. Dye molecules react with intracellular molecules to both increase the fluorescence signal emitted from each molecule and to entrap the fluorescent dye within living cells. These molecules include reactive chloromethyl derivatives of aminocoumarins, hydroxycoumarins, eosin diacetate, fluorescein diacetate, some BODIPY.TM. dye derivatives, and tetramethylrhodamine. The reactivity of these dyes toward macromolecules includes free primary amino groups and free sulffiydryl groups.

Detailed Description Text (349):
Protease Recognition Site--an amino acid sequence that imparts specificity by mimicking the substrate, providing a specific binding and cleavage site for a protease. Although typically a short sequence of amino acids representing the minimal cleavage site for a protease (e.g. DEVD for caspase-3, Villa, P., S. H. Kaufmann, and W. C. Earnshaw. 1997. Caspases and caspase inhibitors. Trends Biochem Sci. 22:388-93), greater specificity may be established by using a longer sequence from an established substrate.

Detailed Description Text (356):
One example of a family of enzymes for which this biosensor can be constructed to report activity is the caspases. Caspases are a class of proteins that catalyze proteolytic cleavage of a wide variety of targets during apoptosis. Following initiation of apoptosis, the Class II "downstream" caspases are activated and are the point of no return in the pathway leading to cell death, resulting in cleavage of downstream target proteins. In specific examples, the biosensors described here were engineered to use nuclear translocation of cleaved GFP as a measurable indicator of caspase activation. Additionally, the use of specific recognition sequences that incorporate surrounding amino acids involved in secondary structure formation in naturally occurring proteins may increase the specificity and sensitivity of this class of biosensor.

Detailed Description Text (358):
One of skill in the art will recognize that the protein biosensors of this aspect of the invention can be adapted to report the activity of any member of the caspase family of proteases, as well as any other protease, by a substitution of the appropriate protease recognition site in any of the constructs (see FIG. 29B). These biosensors can be used in high-content screens to detect in vivo activation of enzymatic activity and to identify specific activity based on cleavage of a known recognition motif. This screen can be used for both live cell and fixed end-point assays, and can be combined with additional measurements to provide a multi-parameter assay.

Detailed Description Text (396):
In the following examples, caspase-specific biosensors with specific product target sequences have been constructed using sets of 4 primers (2 sense and 2 antisense). These primers have overlap regions at their termini, and are used for PCR via a primer walking technique. (Sambrook, J., Fritsch, E. F. and Maniatis, T. (1989) Molecular Cloning: A Laboratory Manual. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y.) The two sense primers were chosen to start from the 5' polylinker (BspI) of the GFP-containing vector (Clontech, California) to the middle of the designed biosensor sequence. The two antisense primers start from a 3' GFP vector site (Bam HI), and overlap with the sense primers by 12 nucleotides in the middle.

Detailed Description Text (404):
a. Caspase-3 Biosensor with an Annexin II Reactant Targeting Domain (pljkGFP)

Detailed Description Text (406):
Primers for Caspase 3, Product target sequence=none (CP3GFP -CYTO):

Detailed Description Text (411):
This biosensor is restricted to the cytoplasm by the reactant target sequence. The reactant target sequence is the annexin II cytoskeletal binding domain (MSTVHEILCKLSLEGVHSTPPSA) (SEQ ID NO:124) (FIG. 29C) (Eberhard et al. 1997. Mol. Biol. Cell 8:293a). The enzyme recognition site corresponds to two copies of the amino acid sequence DEVD (SEQ ID NO:60) (FIG. 29B), which serves as the recognition site of caspase-3. Other examples with different numbers of protease recognition sites and/or additional amino acids from a naturally occurring protease recognition site are shown below. The signal domain is EGFP (SEQ ID NO:46) (FIG. 29A) (Clontech, California). The parent biosensor (the reactant) is restricted to the cytoplasm by binding of the annexin II domain to the cytoskeleton, and is therefore excluded from the nucleus. Upon cleavage of the protease recognition site by caspase 3, the signal domain (EGFP) is released from the reactant targeting domain (annexin II), and is distributed throughout the whole volume of the cell, because it lacks any specific targeting sequence and is small enough to enter the nucleus passively. (FIG. 32)

Detailed Description Text (415):
FIG. 32 illustrates images before and after stimulation of apoptosis by cis-platin in BHK cells, transfected with the caspase 3 biosensor. The images clearly illustrate accumulation of fluorescence in the nucleus. Generation of the spatial change in fluorescence is non-reversible and thus the timing of the assay is flexible. Controls for this biosensor include using a version in

09/762,304

Set	Items	Description
S1	801	AMINOCOUMARIN?
S2	7	S1 AND CASPASE?
S3	3	RD (unique items)

Your SELECT statement is:
s aminocoumarin?

Items	File
67	5: Biosis Previews(R)_1969-2002/Sep W4
128	34: SciSearch(R) Cited Ref Sci_1990-2002/Sep W5
9	35: Dissertation Abs Online_1861-2002/Aug
5	65: Inside Conferences_1993-2002/Sep W4
18	71: ELSEVIER BIOBASE_1994-2002/Sep W5
54	73: EMBASE_1974-2002/Sep W4
3	77: Conference Papers Index_1973-2002/Sep
8	94: JICST-EPlus_1985-2002/Jul W4
7	98: General Sci Abs/Full-Text_1984-2002/Aug
70	144: Pascal_1973-2002/Sep W5
33	155: MEDLINE(R)_1966-2002/Sep W4
1	156: ToxFile_1965-2002/Sep W5
3	159: Cancerlit_1975-2002/Aug
1	162: CAB Health_1983-2002/Aug
1	172: EMBASE Alert_2002/Sep W5
446	399: CA SEARCH(R)_1967-2002/UD=13713
30	434: SciSearch(R) Cited Ref Sci_1974-1989/Dec

SYSTEM:OS - DIALOG OneSearch
File 5:Biosis Previews(R) 1969-2002/Sep W4
(c) 2002 BIOSIS
***File 5: Alert feature enhanced for multiple files, duplicates**
removal, customized scheduling. See HELP ALERT.
File 34:SciSearch(R) Cited Ref Sci 1990-2002/Sep W5
(c) 2002 Inst for Sci Info
***File 34: Alert feature enhanced for multiple files, duplicates**
removal, customized scheduling. See HELP ALERT.
File 73:EMBASE 1974-2002/Sep W4
(c) 2002 Elsevier Science B.V.
***File 73: Alert feature enhanced for multiple files, duplicates**
removal, customized scheduling. See HELP ALERT.
File 144:Pascal 1973-2002/Sep W5
(c) 2002 INIST/CNRS
File 155:MEDLINE(R) 1966-2002/Sep W4
***File 155: Alert feature enhanced for multiple files, duplicates**
removal, customized scheduling. See HELP ALERT.
File 399:CA SEARCH(R) 1967-2002/UD=13713
(c) 2002 American Chemical Society
***File 399: Use is subject to the terms of your user/customer agreement.**
Alert feature enhanced for multiple files, etc. See HELP ALERT.
File 159:Cancerlit 1975-2002/Aug
(c) format only 2002 Dialog Corporation
3/9/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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13563080 BIOSIS NO.: 200200191901
Quantification of in vivo caspase -3 activity in an apoptotic starfish egg using membrane-impermeant substrate.
AUTHOR: Motoyama Yumiko(a); Endo Yoshie(a); Sasaki Kayoko(a); Teshima Tadashi; Shiba Tetsuo; Chiba Kazuyoshi(a)
AUTHOR ADDRESS: (a)Dept. of Biol., Fac. of Sci., Ochanomizu Univ., Tokyo** Japan
JOURNAL: Zoological Science (Tokyo) 18 (Supplement):p85 December, 2001
MEDIUM: print
CONFERENCE/MEETING: Seventy-Second Annual Meeting of the Zoological Society of Japan Fukuoka, Japan October 06-08, 2001
ISSN: 0289-0003
RECORD TYPE: Citation
LANGUAGE: English
REGISTRY NUMBERS: 169592-56-7: **CASPASE** -3
DESCRIPTORS:
MAJOR CONCEPTS: Development
BIOSYSTEMATIC NAMES: Asteroidea--Echinodermata, Invertebrata, Animalia
ORGANISMS: starfish (Asteroidea)--egg

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Echinoderms; Invertebrates
CHEMICALS & BIOCHEMICALS: 7- **aminocoumarin** -4-methanesulfonic acid; acetyl-aspartyl-glutamyl-valyl-aspartyl-cb-4-methanesulfonic acid; **caspase** -3
METHODS & EQUIPMENT: fluorescence microscopy--confocal laser microscopy, imaging method, light microscopy
MISCELLANEOUS TERMS: apoptosis; Meeting Abstract

3/9/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11433607 BIOSIS NO.: 199800214939
Caspase **activation in MCF7 cells responding to etoposide treatment.**
AUTHOR: Benjamin Christopher W(a); Hiebsch Ronald R; Jones David A
AUTHOR ADDRESS: (a)Dep. Cardiovascular Pharmacol., Pharmacia Upjohn Company, 301 Henrietta St., Kalamazoo, MI 49001**USA
JOURNAL: Molecular Pharmacology 53 (3):p446-450 March, 1998
ISSN: 0026-895X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Studies of the biochemical mechanisms evoked by conventional treatments for neoplastic diseases point to apoptosis as a key process for elimination of unwanted cells. Although the pathways through which chemotherapeutics promote cell death remain largely unknown, **caspase** proteases play a central role in the induction of apoptosis in response to a variety of stimuli including tumor necrosis factor, fas ligand, and growth factor deprivation. In this article, we demonstrate the induction of **caspase** protease activity in MCF7 human breast carcinoma cells exposed to the topoisomerase inhibitor, etoposide. **Caspase** protease activity was assessed by incubating cell lysates with the known **caspase** substrates, acetyl-L-aspartic-L-glutamic-L-valyl-L-aspartic acid 4-methyl-7- **aminocoumarin** or acetyl-L-tyrosyl-L-valyl-L-aspartic acid 4-methyl-7- **aminocoumarin** . We observed maximal cleavage of acetyl-L-aspartiC-L-glutamiC-L-valyl-L-aspartic acid 4-methyl-7- **aminocoumarin** within 6 hr following etoposide addition, a time that precedes cell death. In contrast, acetyl-L-tyrosyl-L-valyl-L-aspartic acid 4-methyl-7- **aminocoumarin** was resistant to cleavage activity. This substrate cleavage specificity implies that a **caspase** -3-like protease is activated in response to DNA damage. Consistent with the lysate protease activity, an intracellular marker of **caspase** activation, poly-ADP ribose polymerase (PARP), was cleaved in a concentration- and time-dependent manner after etoposide-treatment. PARP cleavage followed **caspase** activation and reached maximum cleavage between 12 and 16 hr. Incubation of the cells with the peptidic **caspase** inhibitor z-valine-alanine-asparagine-CH|2F prevented **caspase** activation, inhibited PARP cleavage, and inhibited cell death. Thus, etoposide killing of MCF7 cells requires a **caspase** -3-like protease.

DEVD

REGISTRY NUMBERS: 186322-81-6: **CASPASE** ; 33419-42-0: ETOPOSIDE
DESCRIPTORS:
MAJOR CONCEPTS: Pharmacology; Tumor Biology
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: MCF7 (Hominidae)--human breast cancer
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates
CHEMICALS & BIOCHEMICALS: **caspase** --activation; etoposide--antineoplastic-drug
CONCEPT CODES:

3/9/3 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

133205107 CA: 133(15)205107b PATENT
Determination of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity

INVENTOR(AUTHOR): Meyer-Almes, Franz Josef
LOCATION: Germany,
ASSIGNEE: Evotec Analytical Systems G.m.b.H.
PATENT: PCT International ; WO 200054049 A2 DATE: 20000914
APPLICATION: WO 2000EP2174 (20000313) *DE 19910956 (19990312) *EP 99108495 (19990430)
PAGES: 29 pp. CODEN: PIXXD2 LANGUAGE: German CLASS: G01N-033/50A
DESIGNATED COUNTRIES: JP; US DESIGNATED REGIONAL: AT; BE; CH; CY; DE; DK ; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE
SECTION:
CA209012 Biochemical Methods
CA201XXX Pharmacology
CA204XXX Toxicology
CA207XXX Enzymes
IDENTIFIERS: chemosensitivity detn tumor cell apoptosis caspase activity
DESCRIPTORS:
Noble metals...
colloids of; detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
Animal tissue culture... Antibodies... Antitumor agents... Apoptosis... Blood cell... Bone marrow... Chelating agents... Chemotherapy... Environmental analysis... Fluorometry... Leukemia... Neoplasm... Nucleic acids... Peptide nucleic acids... Peptides,biological studies... Test kits ...
detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
Animal cell line...
HL-60; detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
Animal cell line...
JURKAT; detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
Drug screening...
patient-specific; detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
Animal cell line...
U937; detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
CAS REGISTRY NUMBERS:
91-64-5D amino deriv., conjugate with DEVD, detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
211918-90-0D conjugate with aminocoumarin, detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity
50-24-8 50-76-0 147-94-4 20830-81-3 186322-81-6P detn. of chemosensitivity of cells during treatment with various agents via apoptosis caused caspase activity